Cost of upper Indravati Project

2477. SHRIMATI JAYANTI PATNAIK: Will the Minister of WATER RESOURCES be pleased to state:

(a) whether Government have revised the estimated cost of Upper Indravati Project in Orissa;

(b) if so, the details of the revised cost of that project;

(c) the amount spent on that project so far and the progress of the work;

(d) by when the project is expected to by completed; and

(e) the steps taken to expedite the project?

THE MINISTER OF STATE OF THE MINISTRY OF WATER RESOURCES (SHRI SIS RAM OLA): (a) and (b) The Upper Indravati Project was originally approved by Planning Commission during May, 1978 for an estimated cost of Rs. 208.14 crores (1975 price level). The State Government has submitted revised estimate of Upper Indravati Project for Rs. 1476.53 crores (February 1994 price level) to Central Water Commission in November, 1994. The State Government has further been requested to modify the estimate at the Current price level incorporating the comments of the Central Water Commission.

(c) The anticipated expenditure on the project upto 3/97 is Rs. 901.44 crores. The progress of work on the project upto 3/97 is as under:—

1. *Dam/Head works:*
   - (i) Indravati, Podagada & Kapur Dam . . . . . Completed
   - (ii) Muran Dam . . . . . Works in progress
   - (iii) Dykes (8 Nos.) . . . . . Completed
   - (iv) Hati Barrage & Head Regulators . . . . . Completed

2. *Canal System*	*Earth Work*	*Concrete & Masonary*
Left Canal System	85%	63%
Right Canal System	75%	65%
Lift Canal System	Not yet started	

3. *Potential*
   - Ultimate Irrigation potential . . 209,000 hectares
   - Potential achieved upto 3/97 . . . . . 30,000 hectares

(d) The project is schedulde to be completed by the end of IX Plan i.e., 2001-2002.

(e) Union Government has extended/approved Central loan assistance under Accelerated Irrigation Benefits Programme during 1996-97/1997-98 for early completion of the project.

Soil erosion and silting of dams and reservoirs in Orissa

2478. SHRIMATI JAYANTI PATNAIK: Will the Minister of WATER RESOURCES be pleased to state:

(a) whether Government are aware of the problem of soil erosion and silting of dams and reservoirs in the country;

(b) if so, the State-wise details thereof;

(c) whether Orissa has been facing a serious problem due to erosion of soil and increasing silting of reservoirs and dams in the State;

(d) if so, the dam and reservoir-wise details thereof (in Orissa);

(e) whether Government propose to implement any action plan to deal with the situation; and

(f) if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF WATER RESOURCES (SHRI SIS RAM OLA): (a) to (d) Yes, Sir. Soil erosion and silting of reservoirs are natural phenomenae and provisions

are made in the reservoirs for accommodating silt. Generally, the reservoirs are planned for a life of 100 years. Most of the important reservoirs are being monitored by conducting capacity surveys to assess the rate of siltation and storage capacity. The result of surveys conducted during the last 3 decades have indicated that the rate of siltation in some of the reservoirs are higher than that envisaged at the planning stage. A statement showing the rate of siltation in various reservoirs in India including Harkun Dam in Orissa is enclosed. (*See below*)

(e) and (f) Soil conservation measures, afforestation and water management practices in the catchment of River Valley Projects are expected to reduce the rate of siltation in the reservoirs to some extent.

Statement

Rate of Siltation in various reservoirs in India

Sl. No.	Name of reservoir	Name of river	Storage capacity (Mm^3)	Year of impounding	Designed rate of sedimentation	Observed rate of silting in Ha.m/100 Km²/Year — Average Period
1	2	3	4	5	6	7
ANDHRA PRADESH						
1.	Sriramasagar . .	Godavari	3171.94	1970	3.57	6.186 (14 Yrs)
2.	Nizamsagar . .	Manjira	841.18	1930	2.38	4.8911 (45 yrs)
3.	Himayatsagar .	Issa	107.79	1927	N.A.	4.467 (49 yrs)
4.	Ramappa Lake .	Manair	82.48	1919	N.A.	2.583 (56 yrs)
5.	Lakhamvaram Lake	Lakham-vara	60.42	1909	N.A.	10.65 (66 yrs)
6.	Cumbum tank .	Gundu-kamma	105.76	1956	N.A.	9.89 (22 yrs)
7.	Dindi . .	Dindi	73.83	1943	N.A.	0.1708 (33 yrs)
8.	Pakhal Lake . .	Muneru	95.83	1922	N.A.	NIL (53 yrs)
9.	Shanigram . .	Siddipet	29.08	1891	N.A.	1.134 (81 yrs)
10.	Palair . . .	Palair	56.56	1928	N.A.	0.146 (49 yrs)
11.	Wyra . . .	Wyra & Pangidi	24.66	1929	N.A.	2.87 (48 yrs)
12.	Manjira .	Manjira	50.94	1966	N.A.	1.015 (11 yrs)

1	2	3	4	5	6	7
13.	Kaddam . .	Kaddam	124.43	1958	N.A.	9.16 (19 yrs)
14.	Pocharam . .	Aliaru Stream	16.85	1922	N.A.	1.003 (56 yrs)
BIHAR :						
15.	Panchet Hill . .	Damodar	1581.00	1956	6.67	5.877 (29 yrs)
16.	Maithon . .	Barakae	1348.80	1955	9.05	10.247 (24 yrs)
GUJARAT :						
17.	Ukai . . .	Tapi	8510.00	1972	1.49	7.16 (12 yrs)
18.	Kadana . .	Mahi	1543.00	1977	1.30	3.918 (7 yrs)
HIMACHAL PRADESH :						
19.	Pong . . .	Beas	8579.00	1974	..	27.85 (112 yrs)
KARNATAKA :						
20.	Tunghbhadra . .	Tungbhadra	3751.17	1953	4.29	6.48 (32 yrs)
21.	Bhadar . . .	Bhadar	239.22	1963	7.6	11.607 (11 yrs)
KERALA :						
22.	Malampuzha . .	Malampuzha	228.40	1955	N.A.	25.401 (22 yrs)
23.	Peechi . . .	Manali	113.27	1957	N.A.	0 957 (25 yrs)
24.	Mangalam . .	Bharathapuzha	25.47	N.A.	N.A.	11.06 (29 yrs)
25.	Peruvannamuzhi	Kruttiyadi	120.53	N.A.	N.A.	18.4 (13 yrs)
26.	Pooket Lake .	N.A.	N.A.	1969	N.A.	N.A. (19 yrs)
MADHYA PRADESH :						
27.	Gandhi Sagar .	Chambal	7740.00	1960	3.57	8.958 (16 yrs)
MAHARASHTRA :						
28.	Girna . . .	Girna & Panzan	608.81	1965	0 56	7.487 (14 yrs)
29.	Shivaji sagar (Koyna)	Koyna	2987.83	1961	6 67	7 7104 (10 yrs)

1	2	3	4	5	6	7
	ORRISSA :					
30.	Hirakud	Mahanadi	8105.00	1957	2.50	6 618 (27 yrs)
	PUNJAB:					
31.	Bhakra	Sutlej	9869 00	1958	4.29	5.658 (29 yrs)
	TAMIL NADU :					
32.	Lower Bhawani	Bhawani	932.782	1953	N.A.	3.00 (30 yrs)
33.	Vaigai	Vaigai	194 785	1958	N.A.	3.977 (25 yrs)
34.	Mettur (Stanley)	Cauvery	2708.764	1934	N.A.	2.52 (50 yrs)
35.	Upper Bhawani	Kundah	101.1476	1965	N.A.	0 546 (25 yrs)
36.	Sethnur	Penniar	234.828	1957	N.A.	1 017 (25 yrs)
37.	Aliyar	Aliyar	109.40	1962	N.A.	8.475 (19 yrs)
38.	Emerald Avlanchi	Emerald Avlanchi	156.75	1961	N.A.	0.3381 (20 yrs)
39.	Manimutharu	Kailmani Muthar & Malama-nimuthar	159.734	1958	N.A.	12.158 (22 yrs)
40.	Krishanagiri	Pannala-rui	68.25	1957	N.A	1.723 (19 yrs)
41.	Kundah	Kundah	1.534	1960	N.A.	2.63 (20 yrs)
	UTTAR PRADESH :					
42.	Matatila.	Betwa	1132 70	1956	1.33	6.005 (28 yrs)
43.	Ramganga	Ramganga	2449.60	1975	4.25	22.94 (10 yrs)
44.	Ichari	Tons	11.55	1972	N.A.	1.3298 (6 yrs)
45.	Dhuikwan	Betwa	106.45	1907	0.432	0.304 (73 yrs)
	WEST BENGAL :					
46.	Mayurakshi	Mayura-kshi	607.70	1955	3.75	16.826 (15 yrs)

NOTE : Mm^3 —Million cubic metre.
Ha.m —Hectare metre.
Km —Kilometre.